Greg Fisher: We're really not a retailer. We're an OEM. I imagine it's impact is having the same effect on us as on anybody else. Which isn't much. I suspect it depends upon the little market you serve. But it's [OS/2] getting very bad press. People are staying away from it.

Joe Bustillos: I've notice your ads, I've bought products before from you in the CP/M market, and I've seen you ads for XT-clones in Profiles, part of the reason I'm calling is having your involvement with the CP/M market you might have some insight into whether or not you feel that the XT market and the AT market will eventually end up like the CP/M market, which is very small and very specialized.

Greg Fisher: I suspect that it will happen, but not in the same way that it happened to CP/M because CP/M was replaced. MSDOS is an evolution, it's an evolving market. The lower power computers were replaced by the more highly powered computers which are faster but are still functionally identical. You can take a 386 today and run the software from the original PC from 1981 on that computer. So, they will be only out done as a 1961 Corvaire is out done by an ACURA today. They're still both viable.

Joe Bustillos: So you don't see where the end-user won't be

able to purchase XT software in his software store in the forseeable future.

Greg Fisher: No. That would only happen if the PS series took off. And I don't think that it's going to. I think there's too much market resistence to be told, now you've got to scrap everything up to this point and look at something entirely different. And also another major mistake that IBM made was that they made it so that the clone people can't easily duplicate it with their MicroChannel and special processors, motherboard connectors and so on, that's being received very negatively by the marketplace. And IBM has proven to not necessarily provide the pacing and driving element in the marketplace. They may drive it. But they can't control it any longer. They waited too long to get away from the PC architecture. Had they done it two or three years ago they probably could have pulled it off very successfully. But with the large number of the mistakes, the Junior's and what-have-you, they just don't have the control of the market they used to. With their baseline products, like their typewriters and other products, they've always dominated and controlled that marketplace. But they've gotten in their own way in this particular area.

12 years, one of the oldest companies in this business.

MSDOS is good. OS/2 they're already dividing it with this extended

version and all of this stuff. So there is already in-fighting before the product is available, which is really going to delute their effectiveness. Where MSDOS is quite solid with the 3.3 and 3.4 releases, does most everything that people want. People are more sauve now with some 12 million of these computers in the marketplace. People are a little more educated about what it does, what it can do and what their needs are. So they don't look blindly to the leader to provide them and not ask any questions. They're now more sauve and ask questions, what is this OS/2 going to do besides empty my checking account?

Joe Bustillos: It would seem like the high price would cause people to think clone first.

Greg Fisher: With MSDOS it was shown that PC's people may have bought from IBM but all subsequent purchases were clones, except for corporate America, which has their own priorities and they go for the mainstream IBM-type, the Compaqs and such. Where there are other issues besides cost.

3.1.1 okay 11/16/1987 16:57:25

3.2 Plu*Perfect Systems 714-659-4432 (Idyllwild)

[Kaypro CP/M products

C: tech help 4-5pm m-f; 300-1200 bbs after 6pm, left general message 11/13/1987 15:44:24.

Derek McKay.   do not control no, it could, amount of horsepower.6-9mill. XT machines. 6-7 manufacture.]

Derek McKay: I'm basically not going to do any retail sales myself. It's just an adapter board for the XT/AT machines. It's a printer buffer, networking board. That's my . . .

Joe Bustillos: That's you're side-line . . .

Derek McKay: Actually that's my main business, Plu*Perfect is my side-line. Plu*Perfect doesn't make a living anymore. A lot of people are surprised but Plu*Perfect ceased to be profitable about the middle of '85.

Joe Bustillos: Oh, really, the Backgrounder II didn't take off quite like you expected?

Derek McKay: No, we've sold 300 copies.

Joe Bustillos: Is that it?

Derek McKay: Yep.

Joe Bustillos: 'cause I have a copy, and I love it.

Derek McKay: . . . We sent out perhaps 7,000 newsletters and our total response was probably under 300.

Joe Bustillos: That's really too bad. I have since moved to MSDOS, a laptop, I still have the Kaypro w/ bgii and the one thing that amazes me is that in 64K RAM memory so much is being done.

Derek McKay: Right. Compared to these DOS machines. They're very wasteful.

Joe Bustillos: But that's what kind of pisses me off about MSDOS.

Derek McKay: I've got three DOS machines in my office at the moment, compared to two Kaypros, that's the balance here, but ___ I'm doing the hardware development on the DOS machines. There's a number of nicer things about DOS. There is good software available and it is quite economical with memory and that. But it's not as thick on the ground as you might expect. People, I think, spend enormous amounts of effort getting fancy displays that are very, sort of, uneconomically written.

Joe Bustillos: It just amazes me that you can get so much

performance out of a 4 Mhz Z80, with such a limited address space and I've got 640K here and I can't get it to do the same . . .

Derek McKay: Well, what the problem is actually is that the address space, the true address space on an 8088 type machine is strictly 128K. When you look at it simply you get a 64K code segment and a 64K data segment. The moment you start going to the big model every address manipulation takes enormous amounts of time to swap the segment registers. So in reality you are talking about a machine that's got a data and address space that's split but there's still 64K each. In that sense . . .

Joe Bustillos: Someone's got to manage all this swapping around.

Derek McKay: Right. That's why you'll find that the best performing stuff on these machines is still the stuff that uses the small model. That doesn't try to address literally more than 128K. The sort of the classic is the TurboPascal version three. Which performs reasonably well on these machines. It is quite snappy. In compared with the CP/M model, we'll see how the big model does when it arrives.

Joe Bustillos: Yeah, they just released number 4.

Derek McKay: I tend to do all my wordprocessing on DOS machines, just because I've got a good setup with my laser printer.

Joe Bustillos: Oh, getting spoiled, huh.

Derek McKay: Well, yeah, there is improvements like, which wordprocessor do you use?

Joe Bustillos: WordPerfect.

Derek McKay: I use FinalWord, which I am a great patriot of. Largely because it's very fast and it's crash-proof.

Joe Bustillos: Oh, that's good.

Derek McKay: On your CP/M machine, did you use WordStar?

Joe Bustillos: I have NewWord.

Derek McKay: You may want to watch, I don't know if you are too wedded to WordPerfect, but when Borland introduces a product called Sprint, have you heard of it?

Joe Bustillos: No.

Derek McKay: Borland, who's six months late or nine months late

already, it's due in January, that is essentially FinalWord
repackaged. What they've done to it is, FinalWord is totally
configurable, that is you write your own editor in a small text file
in high level language, I want this command to do this and I want
these menus to appear, etc., and the same thing with the formating
side of things. What Borland is doing is producing a front end that
emulates WordPerfect and a front end that emulates WordStar and so, I
use it emulating EMACS, as the editor, but that's I think it's main
strength. It'll emulate anyother wordprocessor if you want to write
the macros for.

Joe Bustillos: How much internal space does it, see I'm
using a laptop so I'm kind of . . .

Derek McKay: It'll run in a 192K machine. I run it quite happily
in a 256K machine. Basically it uses virtual memory like the old
Perfect Writer. But the beauty of it is it's virtual memory is
non-volitile. That is, if you crash it at any time it will tell you
that you've crashed and that it'll recover your virtual memory for
you. So that within a couple of keystrokes you can just pull the
plug out of the wall at anytime and it will have been saved. And
similarly, if you are working with projects, it will handle up to 25
files at once in its virtual memory. And the thing is their in
exactly the same position when you left them when you next go back
into the editor. So you don't have to reload/start. That's the sort

of pluses of it.   It also has very good drivers for every printer I've seen.

Joe Bustillos: So, away from Plu*Perfect you're working on hardware boards. O/I boards?

Derek McKay: Yes, it's an O/I board.

Joe Bustillos: I was asking these question of clone makers to kind of see how they were guaging their sales in terms of how the PS/2 and OS/2 announcement has effected their sales.   Virtually they haven't been effected.

Derek McKay: No, in fact they've done very well.   IBM probably pulled the plug too early.

Joe Bustillos: Yeah, I think they were trying to beat the MAC II and get in their with everyone else.

Derek McKay: I have heard in indirectly from AST and that a lot of people said that it was a mistake for them to get into the systems business, they were doing quite well, but how long would it last. Maybe they have a year of very busy sales filling in the AT holes and . . .

Joe Bustillos: Dismissal of AT and OS/2 interim step by IBM

to protect its minicomputer market.

Derek McKay: Frankly, I use my 80286 in real mode, I just run DOS on it. I'd say, I'm not sure that IBM is strickly that calculating. People attribute an enormous marketing skill to them but frankly I don't, I see once they've got a product that's a reasonable success they do very well marketing with it but as far as guessing what products to develop I don't think their track record doing very well, it's probably slightly worse. They've foisted a number of badly conceived products on the world. This notion that everything is done with cold calculation is probably attributing too much to them.

Joe Bustillos: Do you have any thoughts as to whether the XT market and eventually the AT market will end up like the CP/M?

Derek McKay: I don't think that it will. It could do, you know, I think there's a thing going on here that's facinating and that is that the amount of horsepower that's required to run these DOS programs, a lot of it, because they quite loosely written, is continuously rising. Consequently, there's not an awful lot of modern software that runs reasonably well on these old machines. That's the shame. That's one of the reasons I like FinalWord. It's just as snappy on a 4.7 Mhz XT as it is on my 10 Mhz AT.

Joe Bustillos: It must really scream on the AT.

Derek McKay: It's so fast that you don't notice it, so it doesn't matter. Once you're at that point and even on a slow machine, you take something like MicroSoft Word, it's pretty pidestrian on a standard PC. So that, I think we've definitely got an escalation of computing power required now. If I was one of the conspiratorial theorists I'd say that it was a big plot to sell more of these high end machines. But similarly, I think the whole desktop publishing move is that direction. It's a totally wrong direction as far as I can see. Basically, I have a strong feeling that this WYSIWYG is only use to people who have some asthetic design skills anyway. All other wordprocessing layout-typesetting, the machine should do the work for you, you shouldn't have to lay it out by hand and watch it on the screen. The only benefit of doing it on the screen is where you've got something that, what you might call real asthetic content, and that you're a designer and you want immediate feedback on what you're designing.

Joe Bustillos: Just like another computer tool . . .

Derek McKay: I think it's more, it's like you've got to have some innate artistic sensibility. 99 percent of the people doing desktop publishing are doing it, they're laying everything out by hand, because they don't trust the machine to do it. That's not a labor saving device. You'll notice that a lot of desktop publishing stuff is inconsistently laid out. 'Cause people don't consistently lay

things out by hand. They don't keep the same spacing under their headings, they don't center things under the same rules. And that sort of thing, and it's amazing to me the bad stuff that's being done and it's largely that people have got these 286 and 386 machines that they can lay it out on the screen and not do a very good job. They'd be much better off leaving it to a program. That's one direction. That could continue and everyone be swept up by it and I may be totally wrong. But I feel there will be a little backlash from people . . . Borland's program, Sprint, will be the testing point. If that's successful I think there will always be a place in the foreseeable future for XT-type machines, just because there are programs that can do a reasonable amount of work on them. But it's the trend that everyone's gotta have a PageMaker or a Ventura Publisher running on their machine, they're all going to need faster machines. That's something that you can't predict.

The other thing is that I don't think that this multitasking is going to . . .   You know, most people when they get passed maybe . . . they want instantaneous recall of a program and they want
[multitasking]
interuptability. I don't much need apart perhaps from networking and
∧
communications for any background task.

Joe Bustillos: So, it'd be more like the switch-tasking that you have in bg ii?

Derek McKay: Yeah, but there are several real time activities that you would like to run. One is print spooling, network communication, and perhaps modem communication. Those are the only categories that I can think of that warrant real time multitasking. And those are somewhat special cases. I don't think people can handle . . . there's the special, programmers who love to edit and then compile and then get back to editing, but I don't know. I've yet to meet a guy who can juggle three programs in head at once, and ones compiling while he's working on the other one. My head's still thinking about the one I'm just compiling.

Joe Bustillos: Maybe that explains why code is so huge these days.

Derek McKay: Right. Overall, that's sort of a heretical, I've always been a conservative, I should say. I don't leap onto the leading edge. I think that OS/2 sales will be relatively . . . will be that dramatic, it'll take a long time to wrap up. Most people I know can't run DOS. Give them anything that's got more conceptual complexity, anything that's got multitasking got conceptual complexity, it doesn't matter if you bring it out through a Windows picture interface, there's still several things going on at once. Yeah, most people don't juggle and rub their tummy at the same time.

Joe Bustillos: I think they assume 'cause of the power

they'll give it a MacIntosh interface.

Derek McKay: I've watched people use UNIX for a long time and there you've got a nice mature operating system which allows people to detach jobs. There's people that delight in juggling, but they're a very small minority. Most people can only run one thing at a time and that's all they can manage. They might be able to have one temporary thing interupt them or they might be able to detach something that requires no further interaction, like print spooling or communications. They think about it and then it's gone, but anything where they start a job up and then go back to it later, I don't see people really . . . I'm having enough difficulty as it is. I just don't see where it's going to greatly extend.

But I'm conservative, I stuck to CP/M for a long, maybe I'm not the guy to ask, I stuck to CP/M well past the point where the writing was on the wall.

Joe Bustillos: That maybe true but at least for this particular user there was a lot of value to that because it kept the operating system, I mean, I'm still using the thing, it's still a viable thing. It's just that it's frustrating to not be able to buy software for it.

Derek McKay: That's about the picture. There's a lot of things
that I can actually do faster on my CP/M machine, but there are some
other applications like I have an electrical CAD package that I do my
circuit boards designs and layouts that bearly runs fast enough on
the 10 Mhz AT, I really need a 386 to get satisfactory response. And
I don't blame, you know, that's a program that three or four years
ago I needed a big minicomputer. That sort of thing I don't see
anything wrong with the super powerful machines, but, and there'll be
big booms in those sort of markets, but for the average user, you
know that's the only reason I have a 10 Mhz AT, otherwise, everything
else I do runs quite happily on a standard XT. But when you start
trying to do CAD and those sort of things, that where you just . . .
CP/M, there was never any hope of doing it on that machine.
Basically you, no matter what the Ciarcia's and the various SB0180's
go on about, the problem is that there will never be any software to
run that stuff. It's a little like if you build all that nesting
with it's high tech 280 chip, doesn't matter, the processor doesn't
matter anymore. It's probably a wonderful processor but if it had
come five years earlier we may have seen a different direction, it
doesn't matter now. That processor, is silly to build a desktop
computer around it, just because it's irrelevent. What that
processor is really good at as a dedicated controller, it has very
fast DMA channels you can move a lot of bytes around with it very
efficiently, much better than many of the Intel products. That's its
niche. But it shouldn't be put in a desktop and expect a new
operating system to revive it. Bridger is working on that new

operating system, he's doing as a hobby, which is fine. If I had time to play around with that too, but as far as having the impact .
. .

Joe Bustillos: Is that part of the expansion of the ZCPR?

Derek McKay: Yeah, I don't know if it's directly for Echelon.
But he and Malcom Camp have been working on it. But overall it's just a declining market. It almost doesn't matter what you do. We still have 200 Backgrounder II manuals in stock we'd hopefully like to move them before, there's no one out there that wants them.

Joe Bustillos: It has gotten national publicity.

Derek McKay: Right. The Computer Shopper review brought us about nine enquiries.

Joe Bustillos: A national magazine and that's it . . .

Derek McKay: Right. And six of those were for real oddball machines. Some of them I'd never heard of and others I said, I'm not sure if it'll run on that.

Joe Bustillos: It's interesting that at the time Apple was going in one direction and Apple-CP/M was one of the biggest markets.

Derek McKay: I don't know how you reach those people in any sort
of efficient manner. I don't want to sound all doom and gloom. We
still get out, they trickle out two or three a week. That doesn't
justify keeping . . . my wife ships them out and does the accounting
for Plu*Perfect.

Joe Bustillos: That's really sad. 'Cause you guys were
really, I thought things were happening there.

Derek McKay: Well, we're just actually, if you got, have you got a
TurboRom in your . . .

Joe Bustillos: Yeah.

Derek McKay: Well, we're sending out another mailing to
TurboRom/MultiCopy owners we finally, Bridger has finally finished
DOSdisk, so we now have a DOS emulator running under TurboRom. Like
you can read and write DOS disks directly.

Joe Bustillos: Oh yeah, I have Uniform.

Derek McKay: Yeah, but with Uniform you have to copy the stuff
this works basically, you just set that drive to be a DOS drive and
them from that point on CP/M thinks it's a CP/M drive. It's very

much more like the Uniform on the PC.   If you've got that?

Joe Bustillos: No, I have Accelerator.

Derek McKay: I find it much more useful.   I find it much faster
than these other guys and it takes 4K of memory, it's a resident,
once you set it up. We also preserve datestamping between the DOS and
the CP/M, if you're running DateStamper on the CP/M machine.   That's
the only thing we've done new this year.   We're just sort of mailing
out a very restricted mailing to people that we know have TurboRom or
people that we know have MultiCopy.

Joe Bustillos: Having done some reading, having been
involved in the field it seemed like we were looking at people who
were swiftly becoming orphans and aren't even aware of it.

Derek McKay: Well the other thing is that there is enough of them
out there to generate a lot of attention.   There's at least, the
figures very, there's at least 6 to 9 million XT-class machines out
there.   That gets a lot of attention, and there's at least six or
seven manufacturers that have 386 plug in boards.   And while they are
much too expensive at the moment, $1500 range, I see those coming
down to the six hundred dollar range in a year, year and a half, and
when they get to that point, people won't through their box away.   As
long as they've got a reasonable power supply a lot of people will

up-grade. If they need the new software. But, if they've got a . .
. that's a little bit of what would have happened to CP/M I think if
there had been a forward migration path. People would have kept
their CP/M machines doing what they do reasonably well,
wordprocessing. You know, dBase II doesn't run any run any
noticeably faster on a PC or XT than on CP/M. So I think you'd have
had a lot more co-existence if there had been some sort of
compatibility or sort of at least disk level/program level
compatibility.

Joe Bustillos: Such as CP/M being able to read a DOS disk?

Derek McKay: Well, the thing is even the software, well-behaved
software will still run under OS/2, I don't see any one using that
personally, but I don't think that people are going to feel that
they're being cut off. The other thing is that you've got a lot of
other manufacturers like the people with the MOS386 operating system,
Desqview's 386, Concurrent DOS386, all of those are closer to DOS
than OS/2. Since those are going to maintain, people are always
going to find that whenever someone brings out new software, I think
you'll see some version of it available in a DOS version. I think
you'll see DOS versions of anything except networking, stuff that
relies of the multitasking work. But I don't think that's going to
be the majority of the software.

Joe Bustillos: It looks like they're just taking the XT

machine and providing you several XT machines within the same chip.

Derek McKay: And again, I don't know how many people can handle that. In a sense, BGii hasn't . . . the original Backgrounder we sold nearly 3,000 copies of, which gave you a sort of limited interuptability/suspendability, but clearly we've sold less than 200 bgii's to those people because nearly 100 bgii have been non-Kaypro sales. I'm not so sure how easily people can handle this multitasking.

Joe Bustillos: That really amazes me, the numbers. Because I would assume that there are still more CP/M users out there than that.

Derek McKay: I really don't think so. If there are I don't think they're buying anything. That's probably the . . . I know that Advent sales have pretty well dried up. Peopletalk went broke.

Joe Bustillos: Did they?

Derek McKay: Yeah. Owing us money.

Joe Bustillos: Even though they started marketing MSDOS software . . .

Derek McKay: Yeah, their cost structure wasn't low enough relative to their discounting. It was basically, the more they sold the more they lost.

3.3 David Gerrold 818-unlisted (Northridge)

3.4 Jerry Pournelle 213- unlisted (Hollywood)

3.5 Chuck Ritz 714-969-3269 (NOCCC-IBM PC SIG)

n/a 11/15/1987 15:28:21

3.5.1 n/a 11/15/1987 15:28:31

3.6 Vance Jochim 714-962-2517 (NOCCC-Lotus&Business SIG)

left message on answer machine 11/15/1987 15:29:58

for the price, 386 has 8086 instruction set. 500-1000. chassie, expansion availability. speed yes, no features used yes.

Compaq deskpro 8086, 8Mhz. IBM control, bundling a database within the operating sys, dB retailers pissed---working to kernal. eg., SQL interface.

stay away from non-name-brand clone, different types retailer,

systems-house. IBM games, CGA/EGA needs speed . . . ---also any graphics program, Desqview/Windows-->286/386.

COMDEX, start-up computer, laser PC system, closed box, plug-in slot. matching home and business. 15 years ago IBM, 135K memory filled whole room, RCA 3301, credit system, 36050-multitasking. Still matching need at the machine.

Those that can use it will survive, those that can not will not. Starting salaries. portability . . . uncompetative . . . need to learn to use those tools. TOOLS to be competative.

3.6.1 okay 11/15/1987 17:00:13

3.7 Jon Bedson 714-771-6828 (NOCCC-Clone Builder's SIG)

very CP/M very power market in Europe/indust

IBM no longer control;OS/2 move to control the market.

XT still viable. decreasing important,

desk-top video (non-XT market), work in the business, hardware freak, not-IBM fan

clones on their heels, chips & technologies

even the case, changes up til now not made. PS/2 heading toward UNIX power (eg., operating system with applications built in). Wide open, move of AST and AT bus inhancement could spread out market.

3.7.1 Okay 11/15/1987 15:45:48

3.8 Tom Sutro 714-850-0474 (Orange Coast IBM-PC User Group)

3.9 UCLA PC Users Group 213-473-6668

this multitasking.

Joe Bustillos: That really amazes me, the numbers.
Because I would assume that there are still more CP/M users out
there than that.

Derek McKay: I really don't think so. If there are I don't
think they're buying anything. That's probably the . . . I know
that Advent sales have pretty well dried up. Peopletalk went
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relative to their discounting. It was basically, the more they
sold the more they lost.

1.1.5 Dave Thompson, Micro C, Interview (03/23/88)

Joe Bustillos: My name is Joe Bustillos and I'm a freelance

writer from Southern California, and I'm interested in talking to someone, specifically you, about the projected demise of MSDOS. I'm writing an article on the future of DOS, kind of with the perspective of what's happened with CP/M---whether it will, more or less go the same route.

Dave Thompson: Oh, okay.

Joe Bustillos: Do you mind if I record this conversation?

Dave Thompson: No, go ahead. I just have a few minutes because I am also taking some technical calls this morning, so, shot quickly.

Joe Bustillos: Okay. Two years ago, you did the "Cheap Clone" issue . . .

Dave Thompson: Yes.

Joe Bustillos: . . . Would you have gone, looking back at the two years, would you, do you feel like you would have gone sooner to MSDOS or later, or change anything?

Dave Thompson: I don't know that I would change anything at this point.

Joe Bustillos: Do you feel good about the decision to go with the clones?

Dave Thompson: Yes.

Joe Bustillos: The next thing I guess is: MSDOS, do you think it's going to go away, more or less, like CP/M? Or end up like ZCPR, where it's been tinkered with and more or less become . . .

Dave Thompson: Well, it's being tinkered with now by Microsoft, if you could call that tinkering. No, I don't think so. There are some obvious differences and one of them is the upgrade path with the Intel processors. There was not that kind of path for the Z80, because Zilog was unable to get a semi-compatible chip out the door, the Z800 out the door. So, there was that. So, there's an upgrade path processor wise. There's also the . . . There really wasn't anyway for them to upgrade CP/M substantially, with the 64K limitation. So, they've got a significant upgrade path in terms hardware, they've got a significant upgrade path in terms of the operating system, with the newer versions of MSDOS and with OS/2 and this windows environment. So, I don't see . . . it's possible that MSDOS will be replaced by something else, the obvious alternative is Unix.

Joe Bustillos: On the OS/2, I know I've read Jerry Pournelle

and some of those, and he seems to hint that you will be able to use, user's will be able to use some of their DOS application programs under OS/2.

Dave Thompson: Oh, well, why not?

Joe Bustillos: Well, I was under the impression that it would be a completely different operating system just like you can't use CP/M applications under MSDOS.

Dave Thompson: Oh, no, no it's not that way at all. Standard MSDOS applications will run as a window under OS/2.

Joe Bustillos: Okay. That was a confusion that I had regarding that. Suggestions for new buyers: the cheap XT-clones, AT-clones, 386s . . .

Dave Thompson: More people are buying the ATs than the others right now. And the AT-clones are quite reasonable, if the RAM prices will come down.

Joe Bustillos: I've read Stewart Alsop . . .

Dave Thompson: Who's the article for, by the way?

Joe Bustillos: Well, actually it's for a class that I'm

taking here at Cal State Fullerton and I'm looking at someone like Rolling Stone, something along a more general angle. Stewart Alsop said something regarding avoiding the 286 because it is, more or less, a "brain damaged child" and going straight to the 386.

Dave Thompson: Yeah, but you're going to . . . the 386s, Intel hasn't been willing to share with other manufacturers, and so instead of paying ten bucks a piece for a 286 you'll pay $300 a piece for the 386. So the 386 systems haven't gotten as reasonably priced or as inexpensive as the 286s. Also, right now, there's no advantage to having a 386 over having a 286.   It doesn't run any faster at the same clock speed, programs, software doesn't run any faster at the same clock speed. So, right now . . . and plus the 286 will run OS/2. So, the 286 is not a bad interim. If you think of main processor cards as being simply replacable, you buy . . . you put together an AT system now, clone now, and then you replace it with a 386 card later.

Joe Bustillos: Which you can almost do with an XT right now.

Dave Thompson: Oh, yeah, you can take an XT card out and replace it with an AT-clone card and away you go.

Joe Bustillos: Yeah, I've seen some 386 drop-ins also.

Dave Thompson: Yeah, there are 386 drop-ins, in fact Intel is working on a chip right now. It'll just drop in. It's basically a small daughter board arrangement.

Joe Bustillos: Now, I've talked to Derek McKay and I talked to somebody else at Advent Products and they more or less had the opinion, go ahead if you want to buy a machine right now, go ahead and by an XT, or if you can afford it, an AT-compatible . . .

Dave Thompson: Sure

Joe Bustillos: because OS/2 is two years away, or at least at the time was two years away, and it's very specialized for people that need LAN and other things like that.

Dave Thompson: Hum-m-m. I don't know if it's that far away. And I don't know if it's that specialized. I think it's more the Mac-like interface, which is why the Apple suit right now. That's gonna, I think, be more significant to a lot of the regular users. And that is exactly why I don't think MSDOS is going away, is because of the . . . basically the OS/2 and the other upgrade paths.

Joe Bustillos: Wish list. If someone said, "David, within reason, what would you see in the MSDOS world, or along that same line, what would you, off the top of your head, ask for?"

Dave Thompson: A fast Mac-like operating system for new
beginner users. And OS/2 will be Mac-like, it won't be fast.

Joe Bustillos: It won't be fast [laugh]

Dave Thompson: That's probably the biggest thing that's
missing in the MSDOS world right now, is a way for people to get
into computing real easily. The Macintosh has got its own set of
problems so it shot itself in the foot when they did the hardware,
IBM shot itself in the foot when it selected Microsoft.

Joe Bustillos: Have you used Windows version 2?

Dave Thompson: No, I haven't yet.

Joe Bustillos: Or the 386 version?

Dave Thompson: No.

Joe Bustillos: Okay.

Dave Thompson: version 2 is definitely faster than 1.

Joe Bustillos: Yeah, I heard that version 1 was just

pathetic.

Dave Thompson: It was a dog.

Joe Bustillos: 'Cause I know that Desqview and Windows have both with, quote/unquote, 386 versions of their programs.

Dave Thompson: Ah ha.

Joe Bustillos: that use 86 virtual memory mode. Micro Channels, do think that really has a viable . . .

Dave Thompson: Well, right now, it's a real disadvantage for the common user because you can't . . . you know, the hardware's very expensive, the plug-in cards, the add-in cards, and all that kind of stuff are very expensive and very limited. Right now, you're crazy to Micro Channel stuff. And anyone who buys a [IBM PS/2 model] 30 or a 25, is also very crazy. IBM is, anything less than an 80, and an 80 is too expensive, so I would get, if I were gonna go with a super-screamer, I would get somebody's 386, 20 MHz, like the Compaq.

Joe Bustillos: Are you guys in the market, in investing upgrade hardware-wise?

Dave Thompson: We're not, no, we're not. We got some ATs,

some 186 systems and some Xts. We're just sitting with what we've got.

Joe Bustillos: And you can see that that's perfectly functional.

Dave Thompson: Oh, yeah.

Joe Bustillos: I guess the major question that I had when I was looking at this was wondering whether or not, seeing as most new users don't realize when they make the purchase of a computer that a good two-thirds of their computer dollar is going to go towards software, actually it's gonna get bigger and bigger as time goes by, whether investing in an XT . . .

Dave Thompson: Well, it depends on the user. Some people go out and swipe, borrow software . . .

Joe Bustillos: Right. Well, hypothetically, hypothetically thinking that they're actually going to purchase the stuff . . . my concern was that they were going to end up like the CP/M user where he's got one or two mail-order outlets and that is it and nothing really new coming out.

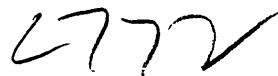**Dave Thompson:**   Yeah, but it's not a dead end like CP/M was.

Joe Bustillos: So they will still continue to produce generic MSDOS.

Dave Thompson: Sure. And then if the generic MSDOS goes away all the people have to do us upgrade their processor board and away they go again. It's tinker-toys. It's a whole different ballgame.

Joe Bustillos: Okay. I think I've got a little bit of an idea. I really appreciate the information, because I had some confusion about that, it sounded like it was going to be a change-over, the way some of the writers were talking it was a complete change over like CP/M to MSDOS, where you're going to have to replace ever[ything] . . . you know, you have WordPerfect today, what you're going to have to get WordPerfect version 6.

Dave Thompson: No, no. Um, there will be a window for running standard MSDOS programs.

Joe Bustillos: And that will probably come under the 1.1 OS/2?

Dave Thompson: That should be in the original version of OS/2.

Joe Bustillos: Well, I think that's all I might need.